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EXAMINER				
TO, JENNIFER N				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/669,309

**Applicant(s)**

LAM, SIU H.

**Examiner**

JENNIFER N. TO

**Art Unit**

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,9,10,13,14,16,17 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9,10,13,14,16,17 and 21 is/are rejected.
- 7) ☒ Claim(s) 4-8,18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1, 3-10, 13-14, and 16-21 are pending for examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 9, and 16-17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (U.S. Patent No. 7203943), and in view of Goyal (U.S. Patent No. 6711607).

4. Shaffer was cited in the previous office action.

5. As per claim 1, Shaffer teaches the invention substantially as claim including a method to assign tasks, comprising:

receiving a request to execute a task on one of a plurality of processors (col. 5, lines 48-53; col. 7, lines 3-9; receiving a request to execute a task on one of a plurality of computer platform 148, wherein each of the computer platform 148 comprises one or more processor);

determining a task type for said task (abstract; col. 5, line 50 through col. 6, line 14; col. 7, lines 5-9; the task type can be assigned or already associated

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with the task in the header information of the task, hence the task type for said task can be determined);

retrieving a processor task value of said task type for each processor (abstract; col. 2, lines 38-49; col. 7, lines 9-26);

selecting a processor from said plurality of processors based on said processor task values (abstract; col. 7, lines 23-50); and

assigning said task to said selected processor (abstract; col.7, lines 48-50).

6. Shaffer did not specifically teach that wherein said processor task value represents a number of other task types affected by assigning said task to a processor.

7. However, Goyal teaches that wherein said processor task value represents a number of other task types affected by assigning said task to a processor (col. 3, lines 42-48; col. 5, lines 30-40; col. 6, lines 45-50; col. 7, lines 1-50).

8. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Shaffer and Goyal because Goyal teaching of utilizing a processor task value represents a number of other task types affected by assigning said task to a processor to select a processor to process task will improved the integrity of Shaffer's system by

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guarantees a quality of service to various task streams being served by multiple processors (Goyal, col. 2, lines 24-27).

9. As per claim 3, Goyal teaches updating said processor task values for each task type and each processor (col. 6, lines 50-56).

10. As per claim 9, Goyal teaches that wherein said selecting comprises: comparing said processor task values for said processors; and selecting a processor having a highest processor task value (col. 6, lines 45-50; col. 7, lines 1-50).

11. As per claims 16-17, and 21, they are rejected for the same reason as claims 1-3, and 9 above.

12. Claims 10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (U.S. Patent No. 6104721), and in view of Goyal (U.S. Patent No. 6711607).

13. Hsu was cited in the previous office action.

14. As per claim 10, Hsu teaches the invention substantially as claim including a system, comprising:

a call terminal to originate information (abstract);

a first antenna to couple to said call terminal to send said information over a communications channel (fig. 1; col. 4, line 60 through col. 5, line 47);

a second antenna to receive said information over said communications channel (fig. 1; col. 4, line 60 through col. 5, line 47);

a gateway to couple to said second antenna and process said information using a processing module, said processing module further comprising a task scheduler and array of processors (col. 2, lines 37-42); and

wherein said task scheduler receives a request to execute a task by one of said array of processors, and assigns said task to a processor based on a processor task value (col. 2, lines 40-42; col. 3, lines 38-48; col. 6, lines 12-32).

15. Hsu did not specifically teach that wherein said processor task value represents a number of other task types affected by assigning said task to a processor.

16. However, Goyal teaches that wherein said processor task value represents a number of other task types affected by assigning said task to a processor (col. 3, lines 42-48; col. 5, lines 30-40; col. 6, lines 45-50; col. 7, lines 1-50).

17. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Hsu and Goyal because Goyal teaching of utilizing a processor task value represents a number

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of other task types affected by assigning said task to a processor to select a processor to process task will improved the integrity of Hsu's system by guarantees a quality of service to various task streams being served by multiple processors (Goyal, col. 2, lines 24-27).

18. As per claim 13, Hsu teaches the invention substantially as claim including an apparatus, comprising:

an array of processors (col. 5, lines 60-63); and

a task scheduler to couple to said array of processors, said task scheduler to receive a first input signal to indicate a request to assign a task to a processor for execution, said task scheduler to select a processor from said array of processors using a processor task value for each processor in said array of processors, and generate a first output signal to assign said task to said selected processor (abstract; col. 2, lines 37-43; col. 3, lines 39-46; col. 6, lines 12-39; col. 9, line 20 through col. 10, line 47; col. 11, lines 8-15).

19. Hsu did not specifically teach that wherein said processor task value represents a number of other task types affected by assigning said task to a processor.

20. However, Goyal teaches that wherein said processor task value represents a number of other task types affected by assigning said task to a

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processor (col. 3, lines 42-48; col. 5, lines 30-40; col. 6, lines 45-50; col. 7, lines 1-50).

21. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Hsu and Goyal because Goyal teaching of utilizing a processor task value represents a number of other task types affected by assigning said task to a processor to select a processor to process task will improved the integrity of Hsu's system by guarantees a quality of service to various task streams being served by multiple processors (Goyal, col. 2, lines 24-27).

22. As per claim 14, Hsu teaches that wherein said array of processors comprises an array of digital signal processors (col. 5, lines 60-63).

#### ***Allowable Subject Matter***

23. Claims 4-8, and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

24. Applicant's arguments with respect to claims 1, 3-10, 13-14, and 16-21 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see attached PTO 892 form for details).

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER N. TO whose telephone number is (571)272-7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.

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28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195